

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE  
FIRST SET OF INFORMATION REQUESTS FROM THE MASS OIL HEAT COUNCIL  
D. T. E. 05-27

Date: June 23, 2005

Responsible: John E. Skirtich, Consultant (Revenue Requirements)

- MOC-1-4 For the years 2002 through 2005 (to date), please provide the following information with regard to the Company's advertising, marketing and sales promotion expenses:
- (a) the annual amount of such expenses used for company image enhancement (i.e., general information regarding Bay State Gas Company);
  - (b) the annual amount of such expenses used to provide existing customers with information (i.e., gas safety messages, conservation information, etc.);
  - (c) the annual amount of such expenses used for promotional purposes (i.e., advertisements and promotional programs designed to attract new customers, to add load, and to encourage conversions from alternate fuels to natural gas); and
  - (d) the annual amount of such expenses used for contractor and trade ally programs (i.e., trade ally incentives, advertising subsidies, training, rebates and equipment giveaways, etc.).

Response:

- (a) The Company has not expended any dollars for the purpose of image enhancement.
- (b) For communications to customers – including conservation messages, bill inserts, construction advertising, outside services for press releases, communications and layout – the Company expended the following amounts:

|      |           |
|------|-----------|
| 2002 | \$85,178  |
| 2003 | \$149,212 |
| 2004 | \$223,925 |
| 2005 | \$75190   |

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RESPONSE OF BAY STATE GAS COMPANY TO THE  
FIRST SET OF INFORMATION REQUESTS FROM THE MASS OIL HEAT COUNCIL  
D. T. E. 05-27

Date: June 23, 2005

Responsible: Stephen H. Bryant, President

MOC-1-11      At page 52 of Witness Bryant's testimony, he indicates that "Bay State's market share...of heating system installation jobs in its distribution system is currently only 4% of the total market for this activity." Please indicate how the Company calculated the 4% figure and provide supporting documentation.

Response:      The calculation assumes that the heating equipment for 252,374 residential customers would need to be replaced once every 15 years. This results in 16,825 heating installations per year for Bay State's residential customers. Bay State installed 725 heating systems in Massachusetts in 2004, which is 4% of the total installations.

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE  
THIRD SET OF INFORMATION REQUESTS FROM THE MASS OIL HEAT COUNCIL  
D. T. E. 05-27

Date: June 23, 2005

Responsible: John E. Skirtich, Consultant (Revenue Requirements)

MOC-3-11      At page 5 of 24 of Exhibit BSG/JES-5 (Witness Skirtich), there is a copy of a "Direct Mail - August mailing" piece. This particular ad which promotes the Company's Guardian Care Protection Program appears to be an ad exclusively for Northern Utilities Natural Gas. With regard to this advertisement, please provide the following information:

(a) please indicate whether the Company seeks to recover costs pertaining to this ad for Northern Utilities Natural Gas. If not, please indicate whether this ad was inadvertently included instead of the Bay State Gas version.

(b) apart from radio spots and telephone "on hold" messages, every other advertisement includes both Bay State and Northern Utilities logo and web addresses. Please indicate why the first two direct mail pieces (lines 1 and 2) were prepared separately for each Company.

Response:      (a) The Northern Utilities ad was inadvertently included instead of the Bay State Gas version. Please see the Attachment MOC-3-11 for the correct attachment.

(b) Prior to January 2005, the Guardian Care rates were different for Bay State Gas and Northern Utilities, necessitating the use of separate brochures.

August 2004

Dear Customer,

Winter in New England. It can bring to mind a vision normally seen in a Currier & Ives painting. But for those of us who live here, it also means one other thing. It's cold outside!

And inside, you enjoy the warmth of clean, reliable gas heat, keeping your family comfortable through the winter months. But what happens if suddenly your heating system has a problem? Your house turns cold, as winter becomes a chilling and unwelcome visitor.

Well, if you have Guardian Care from Bay State Gas, you are just a quick phone call away from toasty warmth. That's because Guardian Care is your year round, round the clock assurance that when your heating system needs repair, we'll be there, with fast, reliable service. And, you're protected from unexpected and costly repairs.

For roughly 35 cents per day, you'll enjoy winter from the comfort of your warm home, even if your heating system decides to quit, because when it does, our trained technicians will be there in a hurry. And you'll thank yourself for signing up with Guardian Care.

You can also get Guardian Care protection for your natural gas water heater and your interior gas lines. See the enclosed brochure for details.

Guardian Care from Bay State Gas. It's a simple investment in keeping you and your family warm all winter long. And we all know, being in New England- it's going to be a long winter! So enroll today by completing the enclosed card.

Warmly yours,

Your Bay State Gas Company  
Energy Products and Services Representative

*P.S. The heating season is fast approaching, so it's not too early to protect your family's comfort by requesting a Guardian Care Repair Service Plan today. For more information call, 1-877-GAS-IS-IT (1-877-427-4748) or visit us at [www.baystategas.com](http://www.baystategas.com).*



**The service and products you need. When you need them.**

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE  
FOURTH SET OF INFORMATION REQUESTS FROM THE MASS OIL HEAT  
COUNCIL  
D. T. E. 05-27

Date: June 23, 2005

Responsible: Stephen H. Bryant, President

MOC-4-6 Please verify that the Company's website is located at  
[www.baystategas.com](http://www.baystategas.com) and provide the following information:

- (a) please identify who designs, maintains and updates the Company's website;
- (b) please give the annual costs relating to website design, management and upkeep for years 2002 to 2005 (to date); and
- (c) please indicate whether the Company splits website costs with any affiliate company and the amounts, if any.

Response: The Company's website is located at [www.baystategas.com](http://www.baystategas.com).

- (a) Responsibility for content and design of the Bay State Gas Web site is shared by a multidisciplinary team that includes representation from Communications, Regulatory Compliance, Customer Contact Center, and IT business units.
- (b) That information is not readily available as MOC-4-6(a) states, the design, management and upkeep of the website is a shared responsibility of some internal employees.
- (c) Yes. The Company shares resources across affiliate companies regarding website management.

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE  
FIRST SET OF INFORMATION REQUESTS FROM LOCAL UWUA 273  
D. T. E. 05-27

Date: June 23, 2005

Responsible: Stephen H. Bryant, President

UWUA-1-4 (a) Please list the names and job titles of those individuals who would have been involved in any decisions to increase or decrease staffing levels among any category of Bay State employees for the period September 1, 1997 to date. To the extent that different supervisors, managers or executives would have been involved in connection with decisions to change staffing levels depending on the job category affected, please denote their respective roles by job category. (E.g., "For job changes at the call center, supervisors A & B would have made recommendations, and managers and executives C, D & E would have reviewed and signed off on those recommendations.")

(b) To the extent not provided in response to UWUA 1-2 above, please provide a copy of all written reports, economic analyses, recommendations and internal communications regarding the changes in staffing levels described in (a).

Response: (a) See Attachment UWUA-1-4 (a)

(b) See Bay State's response to UWUA-1-2

| Year | Executive and Leaders   |   | Leaders   |   | Mangers/Supervisors   |  |  |  |
|------|---|---|---|---|---|--|--|--|
| 1997 | Roger A. Young<br>Joel L. Singer                                    | Chairman & CEO<br>President & COO   | Debra A. Cornish<br>James D. Simpson<br>Carol Collins   | Leader Culture<br>Leader Local Transportation<br>VP Leader Services Delivery  | Aida Chaves<br>Virginia Anthony<br>Joann Cullinan<br>Fran Corkery<br>Paul LaShoto<br>Danny Cote | Mgr, Billing Credit & Collect<br>Mgr, Call Center<br>Ldr Metering<br>Ldr Service Cust Equipment<br>Ldr, Eng/Plants & Facilites<br>Ldr, Maintenance and Const     |  |  |
|      | Thomas Sherman  | Executive VP & CFO  | John Snow<br>Richard Cencini<br>Francisco DaFonte   | Ldr System Maint & Const<br>VP & Leader Reg Pricing Cost<br>Leader Gas Contol   |   |  |  |  |
| 1998 | Roger A. Young<br>Joel Singer                                       | Co-CEO<br>President & Co-CEO  | Debra A. Cornish<br>James Simpson<br>Carol Collins  | VP Culture Development<br>Sr VP Utility Segment<br>VP/Leader Services Delivery  | Aida Chaves<br>Virginia Anthony<br>Joann Cullinan<br>Fran Corkery<br>Paul LaShoto<br>Danny Cote | Mgr, Billing Credit & Collect<br>Mgr, Call Center<br>Leader Metering<br>Ldr Service Cust Equipment<br>Ldr Engineer/Plants & Facilites<br>Ldr Maintenance & Const |  |  |
|      | Thomas Sherman  | Executive VP & CFO  | John Snow<br>Richard Cencini<br>Francisco DaFonte<br>T.J. Aruffo<br>Barbara McKay<br>Steve Curran | Ldr System Maint & Const<br>VP & Leader Reg Pricing Cost<br>Leader Gas Contol<br>VP Corporate IS<br>VP Corporate Communications |   |  |  |  |
| 1999 | Jeff Yundt<br>Ken Margossian  | President & CEO<br>Sr. VP Operations  | John Snow   | VP & General Mgr Southern   | Keith Dalton<br>William St. Syr   | Operations Mgr Springfield<br>Operations Mgr Brockton  |  |  |
|      |   |   | Danny Cote<br>Carol Collins   | VP & GM Northern (Lawrence)<br>VP & Dir Customer Support  | Patricia Teague<br>Maureen Carey<br>Ralph Waldman   | Mgr, Call Center, Spfld<br>Mgr, Customer Acct/Billing<br>Mgr, Dispatch   |  |  |
|      |   |   | Paul Lashoto  | Dir Engineering & Construction  | Bob Christine<br>Joe Mateusiak  | Mgr, Local Gas Plants Brock<br>Mgr, Local Gas Plants Spfld   |  |  |
|      | James Simpson<br>Thomas Sherman<br>Dorothy Hawkins<br>Barbara McKay | Sr. VP Reg Development<br>Ex VP, CFO & Treasurer<br>VP Info Tech & CIO<br>VP Corp Comm & HR | Mel Berger<br>John Hutton   | Dir Marketing/Sales<br>Director Labor   |   |  |  |  |

| Year | Executive and Leaders   |   | Leaders                         |   | Mangers/Supervisors   |  | Attachment UWUA-1-4                |  |
|------|---|---|---------------------------------|---|---|--|------------------------------------|--|
| 2000 | Jeff Yundt<br>Ken Margossian  | President & CEO<br>Sr VP Operations   |                                 |   | Keith Dalton  | Operations Mgr Springfield   | Ted Dulchinos<br>Janet D'Entremont | Page 2 of 3<br>Mgr Distribution<br>Mgr Service |
|      |   |   | Danny Cote<br>Pamela Bellino    | VP & GM Northern (Lawrence)<br>Dir Customer Care            | Bill St. Cyr<br>Pat Teague<br>Maureen Carey   | Operations Mgr Brockton<br>Mgr Call Center<br>Mgr, Customer Acct/Billing   | James Murphy<br>Mike Laghetto      | Mgr Service/Metering<br>Mgr Distribution       |
|      |   |   | Vittorio Pareto<br>Paul LaShoto | Dir Sales & Maketing<br>Dir Engineering & Const             | Bob Christine<br>Joe Mateusiak  | Mgr, Local Gas Plants Brock<br>Mgr, Local Gas Plants Spfld   |                                    |  |
|      | Richard Cencini<br>Thomas Sherman<br>Dorothy Hawkins<br>Barbara McKay | VP Regulatory Affairs<br>EVP CFO & Treasurer<br>VP Info Tech & CIO<br>VP Corp Comm & HR | Scott MacDonald                 | VP Finance & Strategy                                       |   |  |                                    |  |
|      |   |   | John Hutton                     | Sr. Dir HR & Labor Relations                                | Barbara Opoka   | Director, HR   |                                    |  |
|      |   |   |                                 |   |   |  |                                    |  |
| 2001 | Robert Skaggs<br>Ken Margossian                                       | President & CEO<br>Executive VP & COO   | Danny Cote                      | VP Operations   | William St. Cyr   | Mgr Operations Brockton  | James Murphy<br>Michael Laghetto   | Mgr Service<br>Mgr Distribution                |
|      |   |   |                                 |   | Keith Dalton<br>Victor Platania   | Mgr Operations Springfield<br>Mgr Operations Lawrence  | Janet D'Entremont<br>Ted Dulchinos | Mgr Service<br>Mgr Distribution                |
|      |   |   | Pamela Bellino                  | VP Operational Services                                     | Richard Sasdi<br>Marie Walker<br>Pat Teague   | Director Customer Operations<br>Director Metering<br>Mgr Call Center   |                                    |  |
|      | Jack Partirdge<br>Richard James                                       | VP Regulatory<br>VP I/T   | Vittorio Pareto<br>John Hutton  | Dir Sales & Bus Development<br>Sr. Dir HR & Labor Relations |   |  |                                    |  |
|      |   |   | Steve Bryant<br>Robert Mattox   | VP Regulatory and Gov't Policy<br>Dir BSG Applications      |   |  |                                    |  |
|      |   |   |                                 |   |   |  |                                    |  |
| 2002 | Robert Skaggs<br>Ken Margossian                                       | President & CEO<br>EVP & COO  | Dan Cote                        | VP Operations   | William St. Cyr<br>Keith Dalton<br>Vic Platania<br>Michael Laghetto<br>Dana Argo<br>Richard Sasdi<br>Marie Walker<br>Pat Teague | Operations Mgr Brockton<br>Operations Mgr Springfield<br>Operations Mgr Lawrence<br>Mgr Engineering<br>Mgr Plants & Regulators<br>Director Customer Operations<br>Director Metering<br>Mgr Call Center | James Murphy<br>Janet D'Entremont  | Mgr, Serivce<br>Mgr, Service                   |
|      |   |   | Pamela Bellino                  | VP Operational Services                                     |   |  | Robert Christine                   | Mgr, Gas Ops                                   |
|      |   |   | Martin Poulin                   | Dir EP&S and Sales  |   |  |                                    |  |



| Year | Executive and Leaders           |  | Leaders                      |   | Mangers/Supervisors   |   |                                   | Attachment UWUA-1-4          |
|------|---------------------------------|--|------------------------------|---|---|---|-----------------------------------|------------------------------|
|      |                                 |  | John Hutton<br>Robert Mattox | Sr. Dir HR & Labor Relations<br>Director IT |   |   |                                   | DTE 05-27<br>Page 3 of 3     |
| 2003 | Robert Skaggs<br>Margaret Brown | President & CEO<br>VP Field Operations | Dan Cote                     | General Manager - BSG/NU                    | William St. Cyr<br>Pam Bellino<br>Michael Laghetto<br>Dana Argo                 | Operations Mgr Brockton<br>Operations Mgr Springfield<br>Operations Mgr Lawrence<br>Mgr Plants and Regulators                                 | James Murphy<br>Janet D'Entremont | Mgr, Service<br>Mgr, Service |
| 2004 | Samuel Miller                   | Executive VP & COO                     | Danny Cote                   | General Manager                             | William St. Cyr<br>Pam Bellino<br>Michael Laghetto<br>Dana Argo<br>Keith Dalton | Operations Mgr Brockton<br>Operations Mgr Springfield<br>Operations Mgr Lawrence<br>Mgr Plants and Regulators<br>Mgr Engineering Construction | James Murphy<br>Janet D'Entremont | Mgr, Service<br>Mgr, Service |
|      | Robert Skaggs                   |  | Steve Bryant                 | President & Regulatory Policy               | Pat Teague  | Mgr Call Center   |                                   |                              |
| 2005 | Harris Marple                   | Sr VP Dist Operations                  | Danny Cote                   | General Manager                             | William St. Cyr<br>Pam Bellino<br>Michael Laghetto<br>Dana Argo<br>Keith Dalton | Operations Mgr Brockton<br>Operations Mgr Springfield<br>Operations Mgr Lawrence<br>Mgr Plants and Regulators<br>Mgr Engineering Construction | James Murphy<br>Janet D'Entremont |                              |
|      | Kathleen O'Leary                |  | Steve Bryant                 | President & Regulatory Policy               |   |   |                                   |                              |

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE  
SECOND SET OF INFORMATION REQUESTS FROM UWUA LOCAL 273  
D. T. E. 05-27

Date: June 23, 2005

Responsible: Danny G. Cote, General Manager

UWUA-2-26 Please provide a general description of who will perform the work connected with implementing the SIR program, focusing in particular on the relative roles of outside contractors and company employees in doing that work.

Response: Generally speaking, engineering or supervisory employees supported by consultants or temporary employees as necessary will prepare the engineering designs and carry out the permitting for replacement projects performed under the SIR program. Construction Specialists (supervisory employees), supported by consultants or temporary employees as necessary, will supervise the installation projects in the field. Field employees (or depending on location, consultants, temporary employees, or contractors) will perform the field inspection, carry out the majority of the main tie-in work, and perform the service tie-over to the customers piping when making service reconnections for new or relocated outside risers. Contractors will perform the actual replacement work of the mains and services as well as the service tie-over of existing services to the replacement mains that are associated with the SIR program.

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE  
SECOND SET OF INFORMATION REQUESTS FROM UWUA LOCAL 273  
D. T. E. 05-27

Date: June 23, 2005

Responsible: Stephen H. Bryant, President

UWUA-2-27 Does the company currently predict any need to increase staffing levels among its own employees to implement the SIR program? If "yes," please provide all written estimates, studies or reports regarding the staffing changes that the company will need to implement, including the job titles that will be affected and the number of new staff positions that will be needed.

Response: The Company believes it might need additional employees to execute the SIR program but has not yet carried out and studies or written any reports that quantify what those needs might be. Bay State looks on the 2005 construction year period for the SIR program that will inform future decisions and it is Bay State's plan at the end of the construction season to evaluate the results of the SIR program and develop the resource plan for 2006 and beyond. This evaluation would include a review of the performance of all locations and all of the major components (e.g. engineering, construction management, contractors, field resources, etc) of the plan, as well as undertake a review of any data that indicates additional staffing would be needed.

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE  
THIRD SET OF INFORMATION REQUESTS FROM UWUA LOCAL 273  
D. T. E. 05-27

Date: June 23, 2005

Responsible: John E. Skirtich, Consultant (Revenue Requirements)

UWUA-3-21 (Skirtich, p. 34) Apart from the Cote and Bryant testimony and supporting exhibits, does Mr. Skirtich have in his possession any documents supporting the statement that "a number of [OTD and EIC] projects can directly benefit Bay State customers." Please provide a copy of any such documents.

Response: No.

COMMONWEALTH OF MASSACHUSETTS  
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RESPONSE OF BAY STATE GAS COMPANY TO THE  
THIRD SET OF INFORMATION REQUESTS FROM UWUA LOCAL 273  
D. T. E. 05-27

Date: June 23, 2005

Responsible: John E. Skirtich, Consultant (Revenue Requirements)

UWUA-3-24 (Skirtich, p. 38) What is the source for the GPIIPD for the mid-point of the rate year? Please provide all primary source documents relied upon.

Response: Please see Bay State's response to AG-3-26.

COMMONWEALTH OF MASSACHUSETTS  
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RESPONSE OF BAY STATE GAS COMPANY TO THE  
THIRD SET OF INFORMATION REQUESTS FROM UWUA LOCAL 273  
D. T. E. 05-27

Date: June 23, 2005

Responsible: John E. Skirtich, Consultant (Revenue Requirements)

UWUA-3-27 (Skirtich, p. 42) Please list by description and amount any pending requests for abatement or adjustment of property taxes or any pending litigation regarding the amount of property taxes due on any Bay State property.

Response: Please see Bay State's response to AG-1-86.

COMMONWEALTH OF MASSACHUSETTS  
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RESPONSE OF BAY STATE GAS COMPANY TO THE  
THIRD SET OF INFORMATION REQUESTS FROM UWUA LOCAL 273  
D. T. E. 05-27

Date: June 23, 2005

Responsible: John E. Skirtich, Consultant (Revenue Requirements)

UWUA-3-37 (Sched. JES-17) Please confirm that Sched. JES-17 is truly a "SAMPLE" in the sense that it simply illustrates what future SIR filings may look like, and that Sched. JES-17 does not directly impact the company's actual request for increased rates in this case.

Response: Schedule JES-17 is a sample and illustrates the annual revenue increase based on the assumptions made. Please refer to Exhibit BSG/JES-1, at 66 for an explanation of the assumptions.

COMMONWEALTH OF MASSACHUSETTS  
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RESPONSE OF BAY STATE GAS COMPANY TO THE  
THIRD SET OF INFORMATION REQUESTS FROM UWUA LOCAL 273  
D. T. E. 05-27

Date: June 23, 2005

Responsible: Danny G. Cote, General Manager

UWUA-3-52 (Cote, p. 34) Please provide a copy of whatever written documents comprised Bay State's capital authorization policy prior to the adoption in 2005 of the current capital authorization policy.

Response: Please refer to DTE 16-10 that includes both Capital and O&M policies in effect prior to 2005



COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE  
FIRST SET OF INFORMATION REQUESTS FROM THE DOER.  
D. T. E. 05-27

Date: June 23, 2005

Responsible: Lawrence R. Kaufmann, Consultant (PBR)

DOER 1- 1: Refer to Exhibit BSG/LRK-1, pp. 7-8. Please prepare a table comparing the Company's proposed X-factor to those *proposed* by Boston Gas in their original rate indexing plan (1996) and the most recent plan for Blackstone Gas (DTE 04-79). Please also include a comparison of the Company's proposed X-factor to the X-factors *approved* by the Department in each of these two plans.

Response: I am not aware of the original X factor proposed by Blackstone Gas, but the approved X factor was 0.5%. In DPU 96-50, Boston Gas originally proposed an X factor of 0.1%, and the final X factor was 0.5%. Bay State's proposed X factor of 0.41% is therefore quite similar to the final X factors for Boston Gas (in DPU 96-50) and Blackstone Gas.

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RESPONSE OF BAY STATE GAS COMPANY TO THE  
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D. T. E. 05-27

Date: June 23, 2005

Responsible: Lawrence Kaufmann, Consultant (PBR)

DOER 1-2: Please explain the underlying assumptions of the Company's use of the same productivity and inflation differentials that were approved for Boston Gas for Bay State's Rate Indexing Proposal.

Response: Please see the response to DTE-4-29.

COMMONWEALTH OF MASSACHUSETTS  
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RESPONSE OF BAY STATE GAS COMPANY TO THE  
FIRST SET OF INFORMATION REQUESTS FROM THE DOER.  
D. T. E. 05-27

Date: June 23, 2005

Responsible: Lawrence R. Kaufmann, Consultant (PBR)

- DOER 1-3: Adopting the assumption used by the Department in past proceedings that an ideal PBR formulation uses a price index that is related to the costs found in the specific company or industry, please explain the relationship between GDP-PI and gas utility costs, including in your response the following information:
- a. an identification of available gas industry inflation indices;
  - b. an explanation addressing the use of a more indicative inflation factor, such as timely Bureau of Labor Statistics data to compute an index of gas distribution costs; and
  - c. an explanation addressing the need to include an input-price adjustment to the X-factor if a more appropriate index of gas distribution costs were calculated.

Response: In DTE 03-40, the Department ruled that the X factor should contain a 0.3% inflation differential. When this differential is included in the X factor, the GDP-PI is a good measure of the industry's measured input price trend.

Other inflation series for the US natural gas industry are available from the Bureau of Labor Statistics (BLS), but none are suitable to use as an inflation measure in a PBR plan for Bay State's gas distribution services. One reason is that, beginning in January 2004, the Bureau of Economic Analysis changed its basis for industry classification from the 1987 Standard Industrial Classification (SIC) system to the North American Industry Classification System (NAICS). The NAICS was developed in cooperation with Canada and Mexico and presents a more detailed classification of economic activity in North American economies. Many NAICS codes were either created new or derived from parts of other SIC codes. There were considerable changes to the gas distribution classification. The NAICS code for natural gas distribution (22121) was constructed from all of SIC codes 4924 (natural gas distribution), 4925 (mixed, manufactured or liquefied petroleum gas production and/or distribution) and 4932 (gas and other services combined (natural gas distribution)), as well as parts of SIC codes 4823, 4931, and 4939. The NAICS code for natural gas distribution is therefore not compatible with the previous SIC code for gas distribution, so this index does not have a time series that is long enough to estimate the industry's long-run inflation trends. Indeed, the price index for natural gas distribution begins only in

2003, and the component indices for other SIC codes used to construct NAICS 22121 were discontinued after 2003.

In addition, the current "gas distribution" inflation index includes many activities in addition to gas distribution *per se*. This is evident by considering the component indices used to construct this index. Importantly, the price index will include the commodity cost of gas in addition to the prices for gas distribution itself. Changes in the price of commodity gas should not be reflected in an inflation measure used in Bay State's PBR plan. The inclusion of these gas commodity costs is probably the main reason the producer price index for natural gas increased by a total of 17.3% in the seventeen months from December 2002 (the initial index value) to May 2005 (the most recent value, preliminary data). This dramatically outpaces GDP-PI inflation over this period but does not reflect changes in the prices of inputs Bay State uses to provide gas distribution *per se*.

All these reasons are sufficient to reject the use of these BLS indices in a gas distribution PBR plan and to rely, instead, on the GDP-PI as an inflation measure, which has been used as the inflation factor in all gas indexing PBR plans approved in Massachusetts.

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Date: June 23, 2005

Responsible: Lawrence R. Kaufmann, Consultant (PBR)

DOER 1-4: Refer to Exhibit BSG/LRK-1, p. 4, where it states "TFP growth is defined as the change in the total output supplied minus the change in inputs used to produce output...Input price growth refers to inflation in the prices paid for the inputs used in production." Does the Company's proposed X-factor exclude any input or cost elements either for the natural gas industry or the U.S. economy as a whole?

Response: The Company's proposed X factor is based on the TFP and input price studies submitted in DTE 03-40. For the gas distribution industry, these studies included all inputs used in gas distribution *per se* but excluded the cost of gas, which can be viewed as a "cost element ...for the natural gas industry." The productivity and input price measures for the US economy were developed using work from the US Bureau of Labor Statistics (multifactor productivity, or MFP, trend) and the US Department of Commerce (GDP-PI). The GDP-PI measure references the US economy as a whole, while the MFP measure is based on productivity trends for the entire US private business sector.

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Date: June 23, 2005

Responsible: Lawrence R. Kaufmann, Consultant (PBR)

DOER 1-5: Please explain whether the proposed X-factor would be the same for all Northeast gas companies, and, if so, please reconcile this with the conclusion that Bay State is a “significantly superior O&M cost performer within the US gas distribution industry” (BSG/LRK-1, p. 14).

Response: X factors would not be the same for all Northeast gas distributors. In particular, X factors would vary by company depending on the consumer dividend. The fact that Bay State is a “significantly superior O&M cost performer” means that it has less “fat to cut” than a typical gas distributor. Accordingly, the consumer dividend and X factor in Bay State’s plan should be lower than those approved for an average gas distributor in the region.

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Date: June 23, 2005

Responsible: Lawrence R. Kaufmann, Consultant (PBR)

DOER 1-6: In the previous benchmarking for Boston Gas (03-40), Boston Gas costs were found to be 27% below their predicted value, which is higher than the 14% that is reported for Bay State Gas (BSG/LRK-1, p. 14). Please reconcile this observation with the statement that Bay State's cost reductions due to the rate freeze were much greater than for Boston Gas (BSG/LRK-1, p. 13).

Response: The cost differentials cited for the Boston Gas and Bay State studies are not comparable (e.g. the former applies to total gas distribution costs while the latter applies to O&M costs), so there is no need to reconcile any differences.

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Responsible: Lawrence R. Kaufmann, Consultant (PBR)

DOER 1-7: In BSG/LRK-1, p.14, you state "Bay State's O&M costs were 14.4% below their predicted value." Please perform the same calculation for Boston Gas and all the companies in your gas distribution sample.

Response: Pacific Economics Group will only provide this information subject to a confidentiality agreement stating that this information can only be used during this proceeding and none of these calculations can be publicly disclosed at any time during the proceeding. Accordingly, Bay State will provide this following the execution of a mutually agreeable confidentiality agreement and the issuance of a protective order.



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Responsible: Lawrence Kaufmann, Consultant (PBR)

DOER 1-10: Refer to Bay State's response to DTE-4-36. Please provide the same calculations for the "gas distribution industry," as defined for use in the X factor formula.

Response: Analogous to those presented in the response to DTE-4-36, the attached spreadsheet (Attachment DOER-1-10) presents total factor productivity (TFP) trends for the 1993-2001 period for the Northeast gas distribution industry. We have not updated this TFP study beyond 2001 and therefore do not have industry TFP observations for 2002 or 2003, as presented for Bay State in the response to DTE-4-36. For comparisons sake, we have also included the TFP trend for the Northeast gas distribution industry for the 1990-2001 period, which was used to determine the X factor for Boston Gas in DTE 03-40.

It can be seen that the industry TFP trend is fairly stable when using the comprehensive output index (*i.e.* includes both customer numbers and throughput). The average rate of TFP growth was 0.58% over the 1990-2001 period and 0.59% over the 1993-2001 period. However, TFP trends are much more volatile if either customer numbers or throughput alone is used to measure output. This reflects the fact that gas distribution is a multiproduct industry, and measuring productivity with only a single output leads to an incomplete and potentially distorted view of TFP performance.

## TFP INDEXES BY OUTPUT SPECIFICATION - NORTHEAST U.S. 1990-2001

|                            | TFP by Output Specification |           |            | Output Quantity Measures |           |            | Input Quantity |
|----------------------------|-----------------------------|-----------|------------|--------------------------|-----------|------------|----------------|
|                            | Index                       | Customers | Deliveries | Index                    | Customers | Deliveries | Index          |
| 1990                       | 1.0000                      | 1.0000    | 1.0000     | 1.0000                   | 1.0000    | 1.0000     | 1.0000         |
| 1991                       | 0.9883                      | 0.9894    | 0.9848     | 1.0074                   | 1.0085    | 1.0038     | 1.0193         |
| 1992                       | 1.0147                      | 0.9873    | 1.1113     | 1.0443                   | 1.0161    | 1.1438     | 1.0292         |
| 1993                       | 1.0167                      | 0.9785    | 1.1548     | 1.0649                   | 1.0250    | 1.2096     | 1.0474         |
| 1994                       | 1.0204                      | 0.9815    | 1.1611     | 1.0777                   | 1.0366    | 1.2262     | 1.0561         |
| 1995                       | 1.0376                      | 0.9853    | 1.2324     | 1.1029                   | 1.0473    | 1.3099     | 1.0629         |
| 1996                       | 1.0291                      | 0.9792    | 1.2142     | 1.1077                   | 1.0541    | 1.3070     | 1.0765         |
| 1997                       | 1.0620                      | 1.0012    | 1.2923     | 1.1305                   | 1.0658    | 1.3757     | 1.0646         |
| 1998                       | 1.0593                      | 1.0229    | 1.1897     | 1.1200                   | 1.0816    | 1.2579     | 1.0573         |
| 1999                       | 1.0533                      | 1.0162    | 1.1870     | 1.1268                   | 1.0871    | 1.2699     | 1.0698         |
| 2000                       | 1.0473                      | 1.0115    | 1.1758     | 1.1445                   | 1.1054    | 1.2849     | 1.0928         |
| 2001                       | 1.0659                      | 1.0490    | 1.1239     | 1.1389                   | 1.1209    | 1.2009     | 1.0685         |
| Average Annual Growth Rate |                             |           |            |                          |           |            |                |
| 1990-2001                  | 0.58%                       | 0.44%     | 1.06%      | 1.18%                    | 1.04%     | 1.66%      | 0.60%          |
| 1993-2001                  | 0.59%                       | 0.87%     | -0.34%     | 0.84%                    | 1.12%     | -0.09%     | 0.25%          |

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Responsible: Lawrence R. Kaufmann, Consultant (PBR)

DOER 1-11: Refer to Exhibit BSG/LRK-1, p. 10, please estimate the costs of updating a productivity study for Bay State. Please use this estimate to calculate this cost as a % of the Company's annual revenue requirements for Berkshire and for Bay State Gas.

Response: Please see the response to DTE-4-31. I am not aware of the annual revenue requirements for Berkshire Gas.

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Responsible: Lawrence R. Kaufmann, Consultant (PBR)

DOER 1-12: Refer to Exhibit BSG/LRK-1, p. 13, where you state “the Company’s O&M costs exhibited a much sharper decline after the freeze was implemented than did Boston Gas’s O&M costs after the introduction of its first rate indexing PBR Plan.” Does this imply that higher X-factors produce greater cost decreases? Please explain.

Response: No. The value of the X factor itself has no impact on the incentives created by a PBR plan. Incentives are generated by the degree to which price adjustments during the term of the plan are “external” to the performance of the company itself under the plan. When the X factor is based on an industry total factor productivity trend measure, the value of this X factor has no bearing on the incentives generated by the plan.

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Responsible: Lawrence R. Kaufmann, Consultant (PBR)

DOER 1-13: Refer to Exhibit BSG/LRK-1, p. 14, please explain why a benchmarking study that focuses only on O&M costs is used as an indicator of cost performance in a capital-intensive industry, instead of a benchmarking study that focuses on total costs. What is the relationship between superior O&M cost performance and superior total cost performance?

Response: Please see the response to DTE-4-2.

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Responsible: Lawrence R. Kaufmann, Consultant (PBR)

DOER 1-14: Refer to Exhibit BSG/LRK-1, p. 15, where you state, "The evidence shows that the Company has responded more strongly to the incentives created by its rate freeze than did Boston Gas to its first PBR plan. This evidence implies that the Company has fewer opportunities to achieve incremental productivity gains in the future..." Does this statement assume that both companies started from the same productivity level at the beginning of their respective rate freeze or PBR plans? Please explain.

Response: This statement does not assume anything about the productivity level of either Bay State or Boston Gas at the outset of their respective PBR plans. It simply refers to implications from this particular evidence, taken on its own.

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Responsible: Lawrence R. Kaufmann, Consultant (PBR)

DOER 1-15: Please provide O&M cost as a percentage of total costs for the Company on an annual basis over the time period 1999-2003.

Response: Below information is presented on Bay State's O&M cost and total distribution revenues; the latter is a proxy for the Company's total cost.

|      | Distribution Revenue | O&M Expenses |
|------|----------------------|--------------|
| 1999 | 155,035,037          | 74,096,114   |
| 2000 | 165,204,890          | 77,741,265   |
| 2001 | 159,822,170          | 75,169,900   |
| 2002 | 159,847,616          | 83,794,794   |
| 2003 | 172,731,503          | 83,038,764   |

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Responsible: Lawrence R. Kaufmann, Consultant (PBR)

- DOER 1-16: Refer to Exhibit BSG/LRK-1, p. 17, where you discuss the steel infrastructure replacement rate adjustment mechanism.
- a. Please discuss whether there is any interdependence between the investments that will be funded by this replacement mechanism and company's overall cost and productivity levels.
  - b. Please discuss whether the investments that will be funded by this replacement mechanism will impact the setting of future X-factors and the formulation of PBR plans.

Response:

- (a) There is little interdependence between the investments funded by the steel infrastructure replacement (SIR) mechanism and subsequent changes in the Company's productivity. The investments funded by the SIR are examples of what the Department calls "non discretionary capital projects." The Department has said that main replacement projects "may be fairly characterized as non-discretionary because the company is obligated to replace the main in order to maintain the integrity of the distribution system and comply with safety standards" (DTE 03-40 at 67). Alternatively, with discretionary capital projects, "a company has a measure of discretion, in that the company can select from among a number of options the most cost-effective means of meeting the company's operational needs" (DTE 03-40 at 67). From the Department's classification of discretionary and non-discretionary capital projects, it follows that non-discretionary investments like those funded by the SIR are not motivated by a desire for productivity improvements. This contrasts with discretionary capital projects, where the company has more ability to exercise choice and hence affect changes in its productivity.

While this is broadly true, it is recognized that over time the SIR will likely impact maintenance costs associated with gas leaks and leak repairs. All else equal, reductions in such maintenance expenses will be reflected in productivity gains. The SIR mechanism will track these expense reductions separately from the PBR mechanism and flow through a share of these cost reductions to customers.

- (b) There is no reason to believe the SIR will affect the estimation of other X factors, which would be based on long-term TFP trends for the



Northeast gas distribution industry rather than the investment behavior of Bay State *per se*.

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Date: June 23, 2005

Responsible: Danny G. Cote

MP 1-14      Please provide an estimate of the costs associated with providing service from the "Distribution" line which provides service to Monson & Palmer distribution systems. Please provide the cost of the laterals off the 4" distribution line and all updates to the cost estimates for those facilities.

Response:    Please see attachments (A) for original authorization (B) original project cost estimate and (C) summary of capital expenditures for the period 1992 to 2004.

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Date: June 23, 2005

Responsible: Danny G. Cote

MP 1-15      Please provide the calculations and any worksheets which estimated the 2004 operating income of \$1,231,489 and return of 9.44% set forth in Exh. BSG/DGC-1, p. 53 for the MASSPOWER/Monson & Palmer Expansion project.

Response:    Please see attachment

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Date: June 23, 2005

Responsible: Danny G. Cote

MP 1-25      Please identify all additional customers who receive gas services through the use of the original plant installed to provide service to the MASSPOWER facility.

Response:    The MASSPOWER / Monson and Palmer Expansion Project was a single project that consisted of two lines, a 16" and 4" line. The 16" line was known as the "Main Line". The Main Line originally served the needs of the MASSPOWER facility and subsequently has been used to also serve MMWEC. The 4" line is known as the "Distribution Line" to serve Bay State's Monson-Palmer distribution system. Beginning in 1992, as planned, Bay State has constructed laterals of the 4" Distribution Line to serve customers in the Town of Monson and the Town of Palmer. As of Decemebr 2004, Bay State is serving over 280 residential and commercial customers from the 4" Distribution Line and main laterals. As such, MMWEC is the only additional customer.

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Responsible: Danny G. Cote

MP 1-26      Please provide an estimate of the incremental capital costs associated with these new customers.

Response:    MMWEC is the only additional customer to be served from the 16" Main Line. The capital cost incurred to serve this customer was \$175,855.

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Date: June 23, 2005

Responsible: Danny G. Cote

MP 1-30      Please provide a separate rate of return calculation by customer class for service provided to customers through the MASSPOWER main and a separate calculation for rate of return for customers by class who receive service through the incremental investment in additional mains, lateral and other services added subsequent to the construction of the original main and services installed to serve the MASSPOWER facility.

Response:    The MASSPOWER / Monson and Palmer Expansion Project was a single project that consisted of two lines, a 16" and 4" line. The 16" line was known as the "Main Line". The Main Line served the needs of the MASSPOWER facility and subsequently has been used to also serve MMWEC. The 4" line is known as the "Distribution Line" to serve Bay State's Monson-Palmer distribution system. Beginning in 1992, as planned, Bay State has constructed laterals of the 4" Distribution Line to serve customers in the Town of Monson and the Town of Palmer. As of Decemebr 2004, Bay State is serving over 280 residential and commercial customers from the 4" Distribution Line and main laterals. Please see attachment for rate of return calculations.